

SPURS-MIDAS cruise March-April 2013



Jordi Font

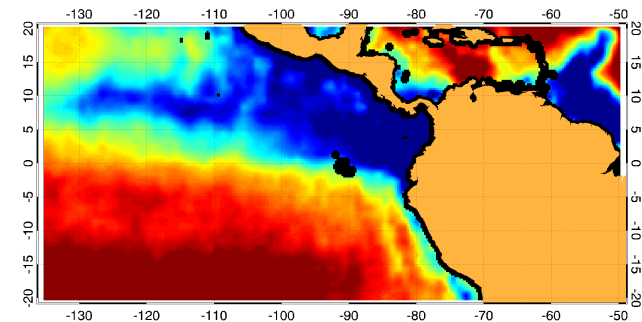
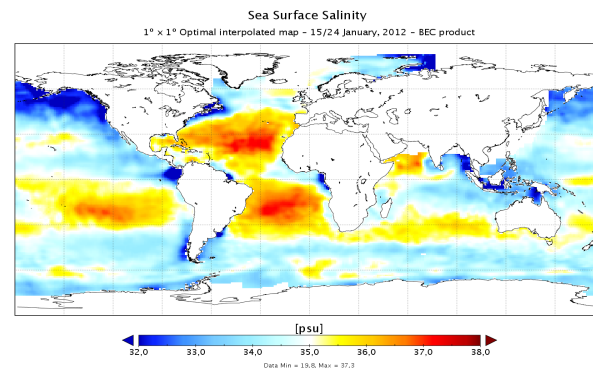
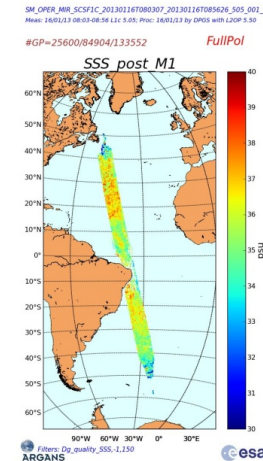
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Level 2 data from ESA

<https://earth.esa.int/web/guest/>

SMOS-BEC Level 3 and 4 data

<http://cp34-bec.cmima.csic.es>



CATDS data

<http://www.salinityremotesensing.ifremer.fr/home>

Spanish contribution to SPURS

Component of MIDAS-6 project 2011-2013

PI: Jordi Font (ICM-CSIC)

SPURS-MIDAS 32-days cruise March – April 2013

R/V Sarmiento de Gamboa

- **Overall length: 70.5 m**
- **Endurance: 40 days**
- **Maximum speed: 15 knots**
- **Crew 16 / Scientists 26**
- **8000m depth deployment**



Departure: Las Palmas, Canary Is., 16 March

5 days transit

19 days SPURS operations

8 days transit

Arrival: Santo Domingo, Dominican Republic, 17 April

(possible change: return to Vigo, NW Spain, same transit length)

Available equipment

- Seabird 911 plus CTD + rosette + LADCP
- VM-ADCP Ocean Surveyor 75 & 150 KHz
- SeaSoar (5-400 m profiles @ 8 knt)
- Underway surface TSG
- 12 SVP-ICM drifters (S @ -50 cm)
- 1 special drifter with S at 3 depths (under construction)
- 2 Apex profiling floats (SBE41, GPS, Iridium, one with Fluor. + O₂)
- possible WaveGlider for one month?
- ASIP microstructure profiler (B. Ward, U. Galway)
- Meteorological + air-sea fluxes sensors
- Surpact floats (G. Reverdin, LOCEAN)



Participants

8 ICM-CSIC
5 UTM-CSIC technicians
4 U. Galway
2 (1?) LOCEAN
2 U. Vigo (biology, ocean colour)
2 U. Cadiz (chemistry)?
some breaths still free

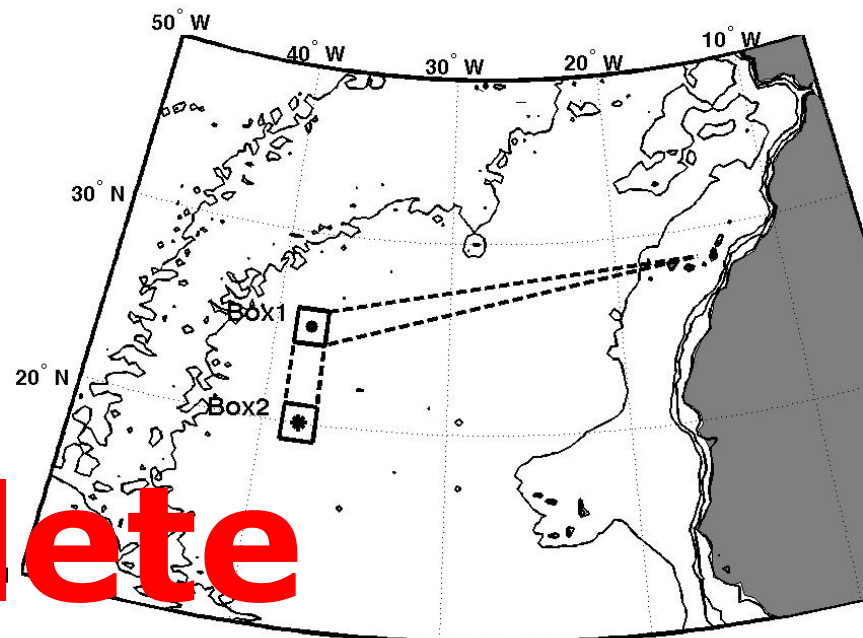


Original planning

Expected to be the 1st SPURS cruise in March 2012

Study region: two
200 km boxes around
20N 38W, 25N 38W

SeaSoar sampling
CTD stations
Moorings, gliders, floats, drifters



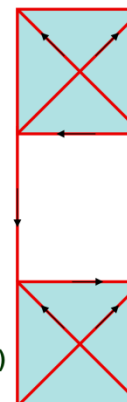
← Las Palmas to 25N 38W (120h)					Sea-glider, ARGO, drifters, swath survey	short-term gliders, ASIP, seasoar, CTD (Box1)
short-term gliders, ASIP, seasoar, CTD (Box1)	seasoar, CTD (Box1), swath survey	seasoar, CTD (Box1), swath survey	Flux buoy deploy	flux compar., seaglider, CTD (Box1)	seaglider, seasoar, CTD (Box1)	seaglider, seasoar, CTD (Box1)
seaglider, seasoar, CTD (Box1)	Route to 20N 38W, seasoar, CTD	Route to 20N 38W, seaglider, seasoar, CTD	seaglider, seasoar, CTD (Box2)	seaglider, seasoar, CTD (Box2)	Check/ refurbish PIRATA st., seaglider, (Box2)	ARGO, drifters, seasoar, CTD (Box2)
seaglider, seasoar, CTD (Box2)	Route to 25N 38W, seaglider, seasoar, CTD	Route to 25N 38W, seasoar, CTD	Route to 25N 38W, seasoar, CTD	Recovery of ASIP, short-term gliders	Recovery of ASIP, short-term gliders	←
25N 38W to Las Palmas (120h) →						

Obsolete

3 Seagliders, 48 day track (16 day coverage)

2 Seagliders, 34 day one way track

3 Seagliders, 48 day track (16 day coverage)



Present situation

To coordinate with Endeavour: two vessels cruise

**Joint planning, complementary measurements
(e.g. possible Sarmiento general survey of SPURS area while
Endeavour servicing moorings and gliders)**

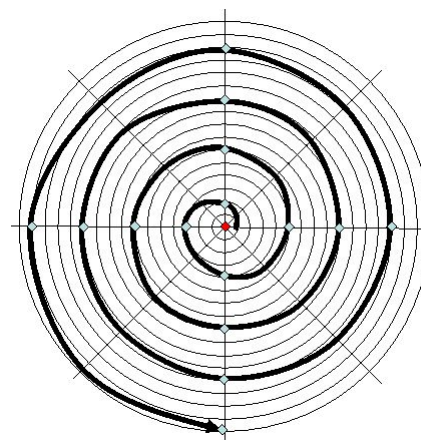
Specific components:

ASIP near-surface profiles (including near to WHOI turbulence glider)

Surpact-SPV drifters comparison

**Mixed layer depth change study (6-7 days special sampling)
short cycle Argo profiling
SeaSoar spiral
1000 m CTD twice a day**

Additional daily plankton sampling



200 km diameter,
around WHOI
mooring



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